



US006348481B2

(12) **United States Patent**  
Inada et al.

(10) Patent No.: **US 6,348,481 B2**  
(45) Date of Patent: **Feb. 19, 2002**

(54) **PHARMACEUTICAL COMPOSITION FOR ANGIOTENSIN II-MEDIATED DISEASES**

(75) Inventors: Yoshlyuki Inada, Kawanishi (JP); Keiji Kubo, Riverside, CA (US)

(73) Assignee: Takeda Chemical Industries, Ltd., Osaka (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/758,355

(22) Filed: Jan. 12, 2001

**Related U.S. Application Data**

(60) Division of application No. 09/563,855, filed on May 4, 2000, now Pat. No. 6,228,874, which is a continuation of application No. 09/287,167, filed on Apr. 6, 1999, now abandoned, which is a continuation of application No. 08/883,040, filed on Jun. 26, 1997, now Pat. No. 5,958,961, which is a division of application No. 08/351,011, filed on Dec. 7, 1994, now Pat. No. 5,721,263, which is a continuation-in-part of application No. 08/254,541, filed on Jun. 6, 1994, now abandoned.

(30) **Foreign Application Priority Data**

Jun. 7, 1993 (JP) ..... 5-135524

(51) Int. Cl.<sup>7</sup> ..... A61K 31/41; A61K 31/42

(52) U.S. Cl. .... 514/364; 514/381

(58) Field of Search ..... 514/381, 364

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

6,040,324 A \* 3/2000 Nishikawa et al. .... 514/381

6,096,772 A \* 8/2000 Fandriks et al. .... 514/381  
6,201,002 B1 \* 3/2001 Beere et al. .... 514/397  
6,232,334 B1 \* 5/2001 Naka et al. .... 514/381

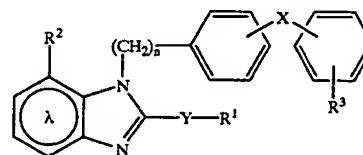
\* cited by examiner

Primary Examiner—Deborah C. Lambkin

(74) Attorney, Agent, or Firm—Foley & Lardner

(57) **ABSTRACT**

This invention relates to a pharmaceutical composition for angiotensin II-mediated diseases, which comprises a compound having angiotensin II antagonistic activity of the formula



wherein R<sup>1</sup> is H or an optionally substituted hydrocarbon residue; R<sup>2</sup> is an optionally esterified carboxyl group; R<sup>3</sup> is a group capable of forming an anion or a group convertible thereinto; X is a covalent bond between the 2 phenyl rings or a spacer having a chain length of 1 to 2 atoms as the linear moiety between the adjoining phenylene group and phenyl group; n is 1 or 2; the ring A is a benzene ring having 1 or 2 optional substituents in addition to R<sup>2</sup>; and Y is a bond, —O—, —S(O)m— (wherein m is 0, 1 or 2) or —N(R<sup>4</sup>)— (wherein R<sup>4</sup> is H or an optionally substituted alkyl group), or a pharmaceutically acceptable salt thereof in combination with a compound having diuretic activity or a compound having calcium antagonistic activity.

**3 Claims, No Drawings**